Case PW/3-22710/A/PCT

Declaration

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF FABIENNE CUESTA ET AL
SERIAL NO.: 10/519,031
FILED: DECEMBER 22, 2004
FOR: Triazinylaminostilbene Disulphonic Acid Mixtures

Group Art Unit 1624

Examiner: V. BALASUBRAMANIAN

DECLARATION UNDER RULE 132

I, Peter Roohringer, a citizen of Switzerland, residing in CH-4124 Schönenbuch, Switzerland, hereby declare:

1. That I was awarded a Diploma in Chemistry (Dipl.Chem.HTL) at the Winterthur Institute of Technology in Winterthur, Switzerland.

2. That I Joined Ciba AG in 1969 working in the "Central Application Technology Department" for textile application. Until my recent retirement, I remained with Ciba, the name of which was changed, firstly to Ciba-Geigy AG and then to Ciba Specialty Chemicals. Since 1979 I worked exclusively in the field of paper technology, mainly sizing, dyeing, optical whitening, application of colour formers, bleaching and retention.

3. That, until my recent retirement, I held the position of laboratory manager for paper application.

4. That I consider myself an expert in the field of paper application.

5. That I have filed 51 patent applications, the majority of which have resulted in granted US patents.

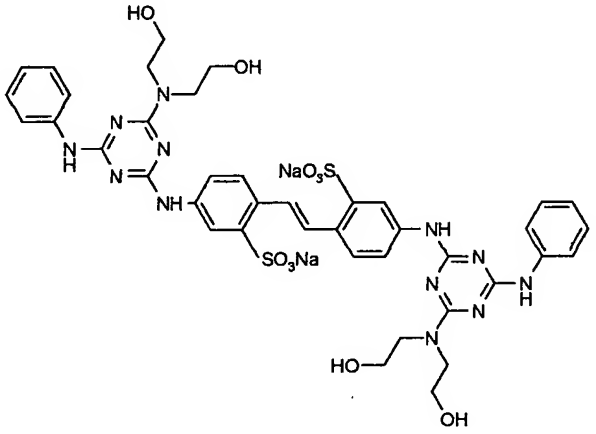
6. That I supervised the following test procedures:

The following fluorescent whitening agents (FWA's) were used in the comparative test procedures:

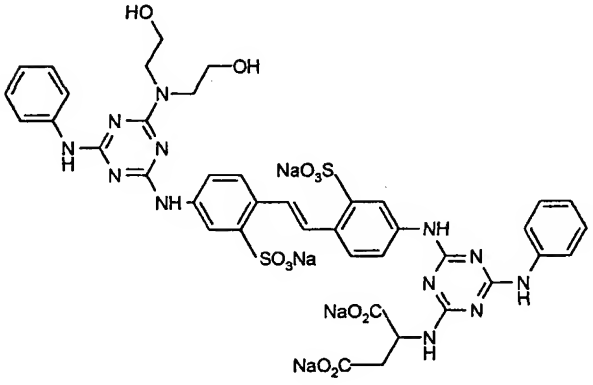
A. The mixture of compounds of formulae (101a), (104b) and (104c), obtained according to Example 4 of the instant invention;

B. The compound of formula (101a) and

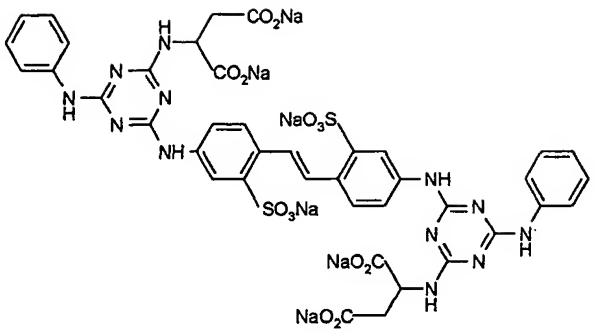
C. The compound of formula (104c).



(101a),



(104b)



(104c)

A coating colour having a solids content of 56.8% was prepared by mixing the components shown in the following Table 1:

Table 1

Component	Parts by weight of solid material
Calcium carbonate (Hydrocarb 90G)	70
Clay SPS	30
DOW DL 966 latex	9
Coatex RT5	0.25
Carboxymethylcellulose (Finnfix 5)	0.5
Polyvinyl alcohol (Moviol 4-98)	0.5
Sodium hydroxide to pH 9-9.5	0.07

Appropriate quantities (0.05, 0.1, 0.2, 0.4 and 0.8 parts of active FWA per 100 parts of dry pigment) of the respective FWA's *A*, *B* and *C* were mixed with the coating colour which was then applied to a standard, neutral sized, FWA-free base paper (Landquart ref. 283952/4) having a weight of 85g/m^2 using a KCC 202 Control Coater equipped with a No. 3 bar and running at 5m/min, to result in coat weights of from 16 to 25g/m^2. After drying through an infra red heater at 185°C running at 5-10m/min (1pass), the CIE-Whiteness (W_{CIE}) of the coated papers was measured by means of a Spectroflash 3000 spectrophotometer. The relative quantities of the respective FWA's required to achieve CIE-Whiteness values of 98 and 102 (base paper CIE-Whiteness: 74.3) were then calculated.

The results of the measurements are summarized in the following Table 2:

Table 2

FWA	Amount for W_{CIE} 98 (Abs[1]/Rel[2])	Amount for W_{CIE} 102 (Abs/Rel[1])
A	0.192/100	0.357/100
B	0.212/110.4	Not attainable
C	0.266/138.5	0.449/125.8

[1]Absolute amounts of FWA in parts per 100parts of dry coating pigment

[2]Relative percentages of FWA required to achieve the desired value (*A*=100%)

7. I,Peter Rohringer, further declare that the results show that the fluorescent whitening agent mixture according to the present invention surprisingly has superior whitening ability to that of either of the individual components, as demonstrated by the above comparative experiments. These superior properties could not be expected from a person having ordinary skill and knowing the prior art.

8. I, Peter Rohringer, finally declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 101 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this th day of (month) (year)

30/06/06

Peter Rohringer